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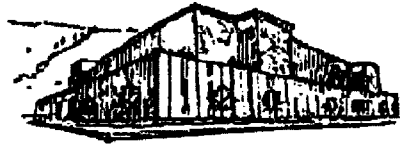
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Determiner Typology and Universals Evidenced from Three Indo-European Languages

by

Ira Glenn Bottoms, III

B.A. Gardner-Webb University

presented in partial fulfillment of the requirements

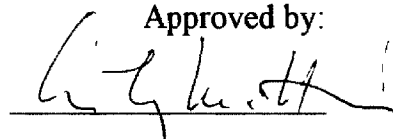
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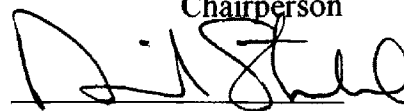
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May 2003

Approved by:

A handwritten signature in black ink, appearing to read "L. G. Bottoms", written over a horizontal line.

Chairperson

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Dean, Graduate School

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Bottoms, Ira G. M.A., May 2003

Determiner Typology and Universals Evidenced from Three Indo-European Languages

Advisor: Anthony Mattina



The Nature of the syntactic category determiner has long been an issue for debate in the linguistic community. One aspect that has been awarded little scholastic attention is that of determiner typology and the related determiner universals. This thesis focuses on one aspect of determiners, which is how the typology is manifested and what related universals exist.

This thesis applies Joseph Greenberg's theory of implicational universals to determiners and reports the result. In order to demonstrate the validity of the hypothesis, three Indo-European languages will be examined. These three languages are English, Russian, and German.

This thesis posits that these results apply to languages universally. It also proposes four universals of determiner occurrence. These universals are initially derived from a set of proposed possible determiner language types, and the subset of these types that actually occur.

Through observing the properties of three Indo-European languages in concert with a set of possible determiner types, this thesis proposes to explain this one aspect of determiner occurrence across languages, that is typology and universals.

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1 Introduction

1.1 Overview of Determiners

The determiner is a part of speech which includes the articles, the demonstratives, the ordinals, the quantifiers, the predeterminers, and the possessives. These classes are combined and organized in various ways in different languages.

I began to notice similarities between the determiner properties in Koine Greek and Dyirbal, a language of North Queensland, two unrelated languages. These similarities did not reveal any language types; however, they did lead me to examine determiner typology. Determiner occurrence across languages appears to be somewhat haphazard and random. Once the data from multiple languages is examined and compared, however, certain patterns emerge which may yield certain typological classes and universals.

In order to reveal these patterns, I adapted Greenberg's method of determining word order typology to determiners. This adaptation revealed twenty-seven possible language types (listed in detail on page seven) based on determiners. Only six of these twenty-seven possible types actually occur in language. A question arose as to why the other twenty-one possible types do not occur. Upon comparing the possible types with the actual types, four attributes, which appear to be universals of human language, emerged. These universals are as follows: that all languages possess qualifiers, or determiners that are not articles; that all determiners in a language will be inflected in the same manner; that a language with indefinite articles must also have definite articles; and, that determiners in all languages obey occurrence restrictions. This thesis proposes the existence of twenty-seven types, and that only six of these occur. This thesis further

proposes that the occurrence of these types is restricted by four universals. Data from three Indo-European languages is used to demonstrate the claim.

The process of writing this paper was somewhat different from the typical writing process, and this accounts for several unusual aspects of it. The research was conducted without a preexisting hypothesis. After examining the results, I induced my hypothesis. Chapter three on Russian was written first, followed by chapter two on English, and then chapter four on German. A chapter on Greek was also written, but has not been included in this thesis. It was the observations from these three languages that led to the theory proposed above. The long lists of examples and counter examples are necessary in order to present a complete sketch of determiner occurrence in the languages examined.

In this paper I propose two different attributes to determiners: first, that determiners break languages into different types (outlined on pages seven through nine); and second, that these types reveal certain universals of determiner occurrence, as outlined above.

In the following three chapters, three different languages will be examined in terms of their determiner properties. These three languages are all Indo-European languages in two different subfamilies. The languages are English, in the Germanic family; Russian, in the Slavic family; and German, in the Germanic family. There are several aspects of determiners that must be addressed before the typology and universals of determiners can be dealt with adequately.

1.1.1 The History of Determiner Study

Before one can adequately examine determiner typology and universals, one should first examine the history of determiner studies. The hypothesis proposed in this paper is largely a continuation of the developments that will be described in this section. This

description will explain what other scholars have said about determiners, since this is the research upon which I have based my analysis.

The study of determiners has its roots in the study of parts of speech. The study of parts of speech in turn, has its roots with the philosopher Plato.¹ Plato was the first Westerner known to have attempted a classification of parts of speech. He broke the Greek words into two categories. The first class was the ὄνομα, or names. This class corresponds roughly to the class of *nouns*. The second class was the ῥῆμα or words.² This class corresponds to the *verbs*, and everything else. With this classification system, Plato had captured a basic split among parts of speech. It was Plato's pupil Aristotle who first attempted to refine the concept of parts of speech. To the two classes that Plato had set up, Aristotle added the συνδεσμός or *bonds*. These were the grammatical words that did not fit into either of Plato's categories. They were the words that bound the sentence together, the prepositions, articles, conjunctions, etc. This class would include all the forms that make up the class, determiner.

The next group to attempt to refine Plato's classification system was the Stoics. Unfortunately, their work has been lost and is only known through the later Alexandrian, Thrax. Thrax took what the Stoics had done and refined their classification into an eight part classification system. This began a long tradition in Europe of breaking language into eight parts of speech, though what these parts were, changes greatly. Thrax set up the following categories based upon their inflectional properties in Greek: nouns, verbs, participles, articles, pronouns, prepositions, adverbs, and conjunctions. To the modern

¹The following section 1.1.1 is adapted from R.L. Trask. "Parts of Speech" in Keith Brown and John Miller: *Concise Encyclopedia of Grammatical Categories*. Oxford: Elsevier, 1999.

²It should be noted that the concept of τοῦ ῥήματος could probably better correspond to the English word *event*, whereas, the Greek word ὁ λόγος would be approximately equivalent to the English *word*.

mind, there are several interesting aspects to Thrax's classification. First, it is of interest that adjectives are grouped with nouns. There are several good reasons for this. In Greek, the adjectives share inflection with nouns. Also, in many cases an adjective can be used substantively. In some cases, the adjective has become a noun, as in ἅγιος, -α, -ον /*agios*/ *holy*, which came to mean, *holy ones*, and then *saints*. The second item of interest in Thrax's list is his classification of participles as a separate class. In Greek, the participle is inflected, first as a verb, and then as a noun. One other item of interest is the inclusion of articles as a separate class. This is the first record where articles are classed separately. Articles, a subset of determiners, receive more of Thrax's attention than other subsets since they do not follow the same pattern of inflection and occurrence as the adjectives. The other subsets of determiners which also occur in Greek do follow the same inflectional and occurrence pattern as the Greek adjectives, and Thrax therefore groups them with the adjectives.

For about another two hundred years, Thrax's classification system was changed very little. In about the second century AD, the Roman philosopher Varro proposed a four class system, which included nouns, verbs, participles, and adverbs. The class *nouns*, includes the adjectives. The *verbs* and *participles* are little changed from Thrax's system, but Varro has combined the other five classes into one, *adverbs*.

Varro's theory was not widely accepted by other Roman philosophers, who continued to use a seven class³ adaptation of Thrax's system. These scholars later added an eighth class, *interjections*, thus maintaining the tradition of eight parts of speech. This tradition of an eight class system remained strong. When in 1795 the English

³Latin has no articles

grammatist Lindley Murray described the parts of speech in English, he also had an eight class system, which was a modification of the Latin system, such that his system had nouns, adjectives, verbs, adverbs, pronouns, prepositions, conjunctions and interjections. Of note in Murray's list, is the exclusion of participles as a separate class, and the inclusion of articles under the class of *adjective*. Also, this is the first major work to classify adjectives as a separate class.

In his 1952 book, the American Charles Fries set up a system with four major classes and fifteen minor ones. The four main classes are nouns, lexical verbs, adjectives, and adverbs. Fries' classification breaks with the previous systems in several ways. First, he includes the pronouns under the heading of *noun* and separates the auxiliary verbs from the lexical verbs. Fries' fifteen minor classes are as follows: determiners, auxiliary verbs, *not*, degree quantifiers, coordinating conjunctions, prepositions, pro form *do*, existential *there*, Wh-words, subordinating conjunctions, utterance-introducers, *yes* and *no*, attention-getters, *please*, and *let's*. Fries' system separates the auxiliary verbs from lexical verbs. He also separates the conjunctions into two classes. Fries' expansion of the class *article* into the class *determiner*, which includes possessives and quantifiers, is relevant to my thesis since this is the part of speech that I concentrate on.

The next major step in the classification of parts of speech was taken by the Generativists in the 1950's and 1960's. The Generativists took the work of Fries and his contemporaries and expanded and modified it. They proposed the following classes: nouns (including pronouns), verbs, adjectives, adverbs, auxiliary verbs, determiners, complementizers, coordinating conjunctions, and subordinating conjunctions. The main item of interest is the addition of the class *complementizer*, which contained the words

that, whether, and a few others, as in the sentence, *Richard said that it was cold outside*.

1.1.2 The Purpose of Determiners

The existence of the class determiner has been established by the scholarship of Charles Fries, Noam Chomsky, and other Generativists, which was outlined in the previous section. In addition, Steven Abney's work on Determiner Phrase has served to further reinforce *determiner* as a legitimate part of speech. The semantic function of determiners is not as well established. This issue, however, should be resolved to a certain degree before the typology can be thoroughly explained since establishing a purpose for the class *determiner* is fundamental to explaining that determiners occur in all languages. This, in turn, is crucial to establishing a typology because a typology is based upon commonalities among languages. Without such commonalities a typology cannot be proposed. It is established that determiners determine, or constrain, the meaning of nouns, but this fact is not sufficient to explain the existence of determiners because to a large extent adjectives can achieve the same goal. In order to achieve a more satisfactory purpose for determiners, this purpose must also account for their occurrence in the context of discourse. So in terms of syntax, what does a determiner do? No single, agreed upon answer has yet been proposed, but there are many possibilities. It is possible that they exist simply to constrain the scope of nouns; however, an examination of English and Greek texts will yield some intriguing observations. Consider for a moment the title of the popular soap opera,

1.1) "The Bold and the Beautiful"

No native speaker has difficulty processing the meaning of this string. It means

1.2) the bold people and the beautiful people

Both of these strings denote the existence of two sets of people, bold people and beautiful people. In order to express this same concept while referring to only one person, the string should be manifested in this way,

1.3) The bold and beautiful

Since this string contains only one determiner, it must therefore be a single Noun Phrase, whereas, 1.1 and 1.2 are two separate Noun Phrases.

Now, consider the following string,

1.4) *Bold and beautiful

This string does not constitute a complete noun phrase, and if it is not incomprehensible, then it will at least leave the listener wondering, bold and beautiful what? This is not to say that a context could not be imagined in which this string would be acceptable, but by itself it is ungrammatical. What is the difference between 1.1 and 1.4? It is the presence of determiners in 1.1. Since all languages have determiners, one might venture to guess, from this data, that the determiner marks the noun phrase, that its presence or absence aids in the interpretability of a string on the very basic level of determining what is and is not a noun phrase.

In further support of the hypothesis concerning the interpretability of a Noun Phrase, examine the common Koine Greek phrase,

1.5) ὁ ἅγιος /hō agios/ the saints (holy ones)

This form is derived from the Greek adjective, ἅγιος /agios/ holy. Here again the presence of the determiner indicates the extent and existence of a complete noun phrase, whereas without the determiner the string is incomplete and ungrammatical.

A counter example to this claim can be found in the occurrence of the English plural,

1.6) Apples are red.

However, it can be argued, and has been by Quirk,⁴ that in this instance there is indeed a determiner in this noun phrase, the zero article, which denotes the indefinite plural. Thus, the actual form of this sentence would be

1.7) \emptyset Apples are red.

Further evidence of this can be found in the French sentence of the same meaning,

1.8) *des pommes sont rouge /de pom sɔ̃ ruʒ/ apples are red*

The article *des* indicates the indefinite plural in French, and corresponds to the zero article in English.

The determiner also exists for the purpose of clarification and determination of the noun, primarily in terms of definiteness versus indefiniteness. Consider the following two examples,

1.9) He wants to buy a house.

1.10) He wants to buy that house.

In example 1.9, he wants to buy a house, any one house out of the complete set of houses. In example 1.10, he wants to buy a specific house within the set of houses, and more specifically a house that is either distant or absent from the speaker. Thus the determiner also serves to constrain the possible meanings of a given noun or noun phrase, and therefore to aid the interpretability of the sentence or string. This being said the main point to be outlined in the remainder of this thesis can be considered valid since the above claim allows a comparison among languages by establishing a commonality among them, and this is necessary in order to establish a typology of determiners.

⁴ Randolph Quirk, et al. *A Grammar of Contemporary English*. New York: Seminar Press, 1972. pp 136-138.

1.2 Determiner Typology

Determiners, like all other aspects of language, divide languages into different types based upon the attributes of the particular feature examined, in this case determiners.

1.2.1 Possible Determiner Language Types

To my knowledge, no work to date has addressed the possible language types that an examination of determiner properties in languages may yield. Nor has any work attempted to establish a system for determining these types. Therefore, after considerable observation of English determiners, in conjunction with limited observation of determiners in other languages (notably, Russian and German, but also Kyrgyz, French, Koine Greek, and Biblical Hebrew), I propose that determiner typology can be represented by the following system of determiner language types, as was described on page one.

If one classes the determiners into three main classes, qualifiers⁵ (including demonstratives, predeterminers, possessives, and interrogatives.), definite articles, and indefinite articles, then there are twenty-seven possible types that may occur in terms of the attributes of the determiners. These three classes are selected based upon my observations of the occurrence of determiners in, Kyrgyz, a language without articles. Languages such as Kyrgyz possess all types of determiners except definite and indefinite articles; therefore, all non-articles can be grouped together. These possibilities are derived by examining these three classes of determiners, qualifiers, definite articles, and indefinite articles, in three possible occurrences, nonexistent⁶, uninflected, and inflected.

⁵I have chosen the term *qualifier* to differentiate this catch-all class from the more restricted determiner class of *quantifier*, which includes *all*, *each*, and so on.

⁶No language exists without qualifiers, but this possibility is entertained in order to exemplify this fact about languages.

Many of these possible types do not or cannot occur. Because of my grouping system, the most widespread class is the qualifiers, followed by the definite articles, and then the indefinite articles. Based on this observation, the types indicated in the following list are ordered with the qualifiers first, definite articles second, and indefinite articles last. The possible types are as follows,

1. No qualifiers, No definite, No indefinite (NNN)
2. Uninflected qualifiers, No definite, No indefinite (UNN)
3. Inflected qualifiers, No definite, No indefinite (INN)
4. No qualifiers, No definite, Uninflected indefinite (NNU)
5. Uninflected qualifiers, No definite, Uninflected indefinite (UNU)
6. Inflected qualifiers, No definite, Uninflected indefinite (INU)
7. No qualifiers, No definite, Inflected indefinite (NNI)
8. Uninflected qualifiers, No definite, Inflected indefinite (UNI)
9. Inflected qualifiers, No definite, Inflected indefinite (INI)
10. No qualifiers, Uninflected definite, No indefinite (NUN)
11. Uninflected qualifiers, Uninflected definite, No indefinite (UUN)
12. Inflected qualifiers, Uninflected definite, No definite (IUN)
13. No qualifiers, Uninflected definite, Uninflected indefinite (NUU)
14. Uninflected qualifiers, Uninflected definite, Uninflected indefinite (UUU)
15. Inflected definite, Uninflected definite, Uninflected indefinite (IUU)
16. No qualifiers, Uninflected definite, Inflected indefinite (NUI)
17. Uninflected qualifiers, Uninflected definite, Inflected indefinite (UUI)
18. Inflected qualifiers, Uninflected definite, Inflected indefinite (IUI)

19. No qualifiers, Inflected definite, No indefinite (NIN)
20. Uninflected qualifiers, Inflected definite, No indefinite (UIN)
21. Inflected qualifiers, Inflected definite, No indefinite (IIN)
22. No qualifiers, Inflected definite, Uninflected indefinite (NIU)
23. Uninflected qualifiers, Inflected definite, Uninflected indefinite (UTU)
24. Inflected qualifiers, Inflected definite, Uninflected indefinite (IIU)
25. No qualifiers, Inflected definite, Inflected indefinite (NII)
26. Uninflected qualifiers, Inflected definite, Inflected indefinite (UII)
27. Inflected qualifiers, Inflected definite, Inflected indefinite (III)

Of these twenty-seven possibilities, twenty-one do not or cannot occur, leaving only six classes. The reasons why these twenty-one possible classes do not occur constitute the determiner universals, and will be explored in section 1.3. The six occurring forms are,

1. UNN
2. INN
3. UUN
4. UUU
5. IIN
6. III

Presumably, all human languages belong to one of these six types.

1.2.2 Occurring Determiner Types

The six types listed above actually occur in human languages, but which type is more common and which is less common cannot be determined without significant additional research. The UNN type is relatively common in Turkic languages, such as Kyrgyz.

1.10) *bul kifi* this man

1.11) *bul kifini* these men

The form of the qualifier, *bul* does not change with regard to the number, gender, or case of the head noun.

The INN type is also common, especially in Slavic languages. An excellent example of this is the Russian language. Consider the following examples,

1.12) тот человек новый /tot tʃelovek novʲij/ that man is new

1.13) я вижу того человек /ja vidʲat togo tʃelovek/ I see that man

In these examples the determiner *tot* is marked for case. In example 1.12, it is marked for nominative case, whereas in 1.13 it is marked for accusative case.

The UUN type does not appear to be as common as the previous two types. It does occur in Biblical Hebrew.

1.14) /haʔarets/ the earth

In Hebrew the prefix /ha/ *the* remains constant regardless of number, gender, or case. The qualifiers function in the same manner, but are not necessarily prefixes.

The UUU type is relatively uncommon across languages; however, English is a member of this type. In English, the determiners are not modified for case, number, or gender, nor are the nouns.

The IIN type is moderately common. Koine Greek is a member of this type. In Koine Greek, the definite article, and the qualifiers are marked for gender, number, and case. They must agree with the head noun in all three of these respects.

The final type, III, is common among Germanic languages. Consider the following examples from German,

1.15) *der Mann the man*

1.16) *dem Mann to the man*

1.17) *das Wasser the water*

The determiners in German are marked for case, as in examples 1.15 and 1.16, and for gender, as in 1.17. They are also marked for number.

1.3 Determiner Universals

As noted in the previous section, there are many determiner types that do not occur. There are universals of languages that may help explain this. These universals are based largely upon Joseph Greenberg's implicational universals.⁷ Based upon my examination of the possible types, and subsequent comparison to the occurring types, three patterns emerge that suggest certain facts about language. The first fact is that all languages have qualifiers. To my knowledge, no language has yet been described that does not have at least qualifiers and demonstratives. The second fact is that languages that have indefinite articles also have definite articles. Indefinite articles cannot occur without definite articles. The third fact is that if one class of determiner is inflected, all other occurring classes must also be inflected. Therefore, in no language can one class be

⁷ Joseph H. Greenberg. *Universals of Human Language*, 2nd ed. Cambridge, MA: MIT Press, 1966.

inflected and another uninflected. These three facts appear to be universal throughout all human languages.

The fourth universal does not relate to the determiner types but rather to the ways in which determiners occur within a language. This universal is that in all languages determiners obey three types of restrictions: co-occurrence restrictions, which restrict which determiners can co-occur together; ordering restrictions, which determine the order in which co-occurring determiners fall within the noun phrase; and subcategorization restrictions, which determine what nouns a determiner can modify.

1.4 Syntax of Determiners

The view of the syntax of determiners has fluctuated greatly over the past fifty years.⁸ Originally, they were viewed as nominal modifiers as part of the linear string of the sentence. Then, in the late 1950's and early 1960's, Transformational Grammar began to alter the perception of syntax, and thus of determiner syntax. The determiner was now viewed as the sister to the noun on a hierarchical structure as in Figure 1.1

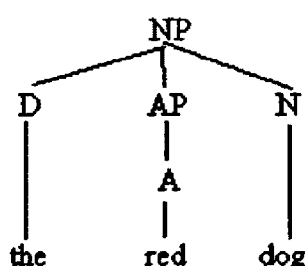


Figure 1.1

In the late 1970's the view of the syntax of determiners was changed again, this time by X-bar theory, which proposed the following structure, seen in Figure 1.2.

⁸ The following historical narrative is adapted from Jamal Ouhalla. *Introducing Transformational Grammar*. Arnold, 1999.

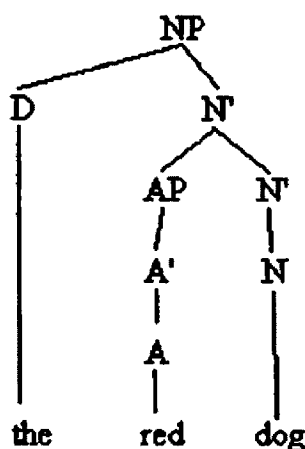


Figure 1.2

In Figure 1.2, the D is in the specifier position of the Noun Phrase, denoting both its relationship to the head N, and its linear position.

The most recent revision to determiner syntax was proposed by Steven Abney in 1987. He proposed a new phrasal constituent, the Determiner Phrase (DP). The DP occurs in the specifier position of the Inflected Phrase (IP), where the Noun Phrase had originally resided. The Noun Phrase then becomes the complement of the head D. This structure helps explain many attributes of English and German determiner structure. For example, this structure creates a position for all of the possible determiners that can co-occur in these languages. The DP hypothesis may face a problem with Russian syntax, for reasons that will be outlined in chapter three.

2 English Determiners

2.1 Overview of English Determiners

English is a language that exhibits a UUU structure, in which the definite and indefinite articles, and the qualifiers are all uninflected, type four in my scheme. The agreed upon forms that comprise the set of determiners in English are as follows:

<i>a(n)</i>	<i>any</i>
<i>each</i>	<i>either</i>
<i>enough</i>	<i>every</i>
<i>much</i>	<i>neither</i>
<i>no</i>	<i>some</i>
<i>that</i>	<i>the</i>
<i>these</i>	<i>this</i>
<i>those</i>	<i>what</i>
<i>which</i>	<i>whose</i>
possessives	\emptyset^I

Some analysts include the predeterminers *all*, *both*, and *half*, and the ordinals.

These determiners can be broken into seven subclasses. The broadest of these is the subclass quantifiers. These include, *any*, *each*, *either*, *enough*, *every*, *much*, *neither*, *no*, and *some*. A more restricted subclass is that of the demonstratives, *this*, *that*, *these*, and *those*. The third class is that of the interrogatives, *what*, *which*, and *whose*. The predeterminers, *all*, *both*, and *half* as well as *double*, *triple*, *twice*, *three times*, etc. comprise the fourth subclass. The fifth is comprised of the articles, *the*, *a(n)*, and \emptyset . The sixth subclass is that of the ordinal modifiers, which include the ordinal numbers as well

as *next*, *last*, *other*, and *another*. All possessive Noun Phrases pattern similarly, and thus can be grouped as the seventh subclass.

2.2 Co-Occurrence Restriction of English Determiner Subclasses

Determiners in all languages obey co-occurrence restrictions, but the extent of these restrictions varies widely across languages. Following is an account of the co-occurrence restriction that English determiners obey.²

2.2.1 Qualifiers

The members of this subclass cannot co-occur with each other, as in,

2.1) *Any neither bird

nor with the other determiners as in,

2.2) *The any honey

2.3) *Which enough candy

They also cannot co-occur with the predeterminers, thus,

2.4) *All much water

2.5) *Double every water³

The qualifiers *any*, *each*, *enough*, *much*, *neither*, and *some* also have alternative constructions with *of*. These constructions obey a different set of co-occurrence restrictions. They can still not co-occur with other qualifiers, but they can co-occur with the demonstratives, as in,

2.6) Much of this meat

2.7) Neither of these shoes

¹ The separation of the *ø* article from the *a(n)* article is from Quirk.

² Adapted from Randolph Quirk, et al. *A Grammar of Contemporary English*. New York: Seminar Press, 1972. pp 136-143.

They can also co-occur with the determiners, thus,

2.8) Enough of the cats

2.9) Much of a car

They cannot co-occur with the \emptyset article,

2.10) *Some of trees

2.11) *Any of turtles

They cannot co-occur with the predeterminers, but they can co-occur with the ordinals, as in,

2.12) Each of the first boats

2.13) *All some of the rocks

They cannot co-occur with the ordinals without also co-occurring with the definite article, as in,

2.14) *Any of next tests

2.2.2 Demonstratives

The demonstratives pattern together and can co-occur with the predeterminers and the ordinals, as well as certain other *of* constructions. They can co-occur with the predeterminers, thus,

2.15) All this light

2.16) Both these desks

2.17) Half those apples

2.18) Double that number

This and *that* may also co-occur with the ordinals, as in,

³This is an example of a Determiner Phrase, not a complete sentence in the Imperative mood (which would be completely grammatical).

2.19) That next chair

2.20) This third book

2.2.3 Interrogatives

The interrogative determiners *what*, *which*, and *whose* can co-occur with the predeterminers and with the qualifiers with *of*,

2.21) All whose book

2.22) Each of what apples

2.2.4 Predeterminers

The predeterminers in English can co-occur with the demonstratives, the articles, the interrogatives, and the possessives. They can co-occur with the demonstratives, as in,

2.23) All this light

2.24) Double these portions

They can co-occur with the articles similarly,

2.25) Half the bed

2.26) Twice a man

Also, they can co-occur with the interrogatives in the following ways,

2.27) Both whose cars

2.28) Thrice what bear

They cannot co-occur with the ordinals,

2.29) *All next cats

They can, however, co-occur with the possessives, thus,

2.30) Both John's books

2.31) All my cows

2.2.5 Articles

English articles may not co-occur with possessives, demonstratives, interrogatives, or qualifiers. The definite article can co-occur with the predeterminers, as in,

2.32) Half the bread

2.33) Double the milk

The indefinite article can only co-occur with the predeterminers, *half*, *twice*, and *three times*, etc.

2.34) Half a car

2.35) *All a milk⁴

2.36) *Both a houses

2.37) Twice a bird

2.38) *Triple a light

Both the definite and indefinite articles can co-occur with the ordinals,

2.39) The next window

2.40) A first cake

The *ø* article also appears to co-occur with the ordinals, thus,

2.41) Next winner

2.2.6 Ordinals

Ordinals in English can co-occur with all other determiners except the qualifiers and the predeterminers,

2.42) This second cup

⁴Note: The ungrammaticality of this Noun Phrase is related to the subcategorization restrictions of the English indefinite article, *a(n)*.

2.43) A third coat

2.44) Whose fourth duck

2.45) Bob's fifth coke

The ordinals can occur with the qualifiers with *of*, if they also co-occur with a definite article or a demonstrative, as in,

2.46) Any of the first customers

2.2.7 Possessives

The possessives in English can co-occur only with the predeterminers, the ordinals, and the qualifiers and *of*, as in the following,

2.47) All Wanda's charcoal

2.48) Bill's first assignment

2.49) Each of Ray's dogs

All aspects of English Determiners obey co-occurrence restrictions, as posited by universal number four.

2.3 Ordering Restrictions of English Determiners

The third set of restrictions that determiners obey is ordering restrictions. These restrictions determine the order in which co-occurring determiners will appear inside a Noun Phrase.

Either a predeterminer or a qualifier with *of* will occur first, followed by either a demonstrative, an article, an interrogative, or a possessive. Then will follow an ordinal, followed by a numeral, and then an adjective. In English, the last position in such a noun phrase will be the noun, thus,

2.50) All the first seven green apples

2.51) Any of the next nine pink peaches

Another possibility is that a qualifier will occur first, followed by a numeral, an adjective and the head noun, thus,

2.52) Every six old shoes

The ordering restrictions can be represented as a chart in the following way,

Predeterminer	Demonstrative	Ordinal	Numeral	Adjective	Noun
Quantifier + of	Article				
	Interrogative				
	Possessive				

Figure 2.1

Qualifier	Numeral	Adjective	Noun
-----------	---------	-----------	------

Figure 2.2

All English determiners obey ordering restrictions, as proposed by the fourth universal.

2.4 Subcategorization Restrictions of English Determiners

All determiners obey subcategorization restrictions. These restrictions determine what type of noun a particular determiner can modify. The determiners break into six groups based on subcategorization. These groups bear little or no relation to the seven natural classes of English determiners. In order to fully explain subcategorization restrictions, one must first explain the breakdown of English nouns since the subcategorization properties are based on this breakdown.

2.4.1 Subcategorization of English Nouns

According to Quirk,⁵ all English nouns fall into one of three categories. These categories are singular, plural, and mass. Singular and plural nouns are fairly well known; mass nouns, however, may require some explanation. They are simply nouns that refer to an object that cannot be counted, such as *water*, *light*, or *ink*. Quirk, et al. also sets up a frame for categorizing nouns; thus in figure 2.3 below, *dog* is singular, *dogs* is plural, and *water* is mass. This same frame will be used to represent subcategorization restrictions among the determiners.

dog	water
dogs	

Figure 2.3

2.4.2 Group One Determiners

The group one determiners, in terms of their subcategorization properties, are *the*, *no*, *whose*, *which*, *what*, *some* (when stressed), *any* (when stressed), and the possessives. These forms subcategorize for all three classes of nouns.

2.53) the man

2.54) the men

2.55) the light

2.56) whose cat

2.57) whose cats

2.58) whose water

2.4.3 Group Two Determiners

Group two determiners consist of *Ø*, *some* (when unstressed), *any* (when unstressed), and *enough*. These forms subcategorize for a plural noun, as in

2.59) Enough pillows

2.60) Pillows (with the *Ø* article)

They also subcategorize for a mass noun,

2.61) Enough paint

2.62) Paint (Again, with the *Ø* article)

They cannot, however, subcategorize for a singular count noun, thus,

2.63) *Enough cat

2.64) *Cat⁶

2.4.4 Group Three Determiners

The group three determiners are simply the singular demonstratives *this* and *that*.

They subcategorize for a singular noun or a mass noun,

2.65) This beaver

2.66) That ink

They do not subcategorize for a plural noun,

2.67) *This beavers

2.68) *That houses

2.4.5 Group Four Determiners

This group of determiners is comprised of the plural demonstratives *these* and *those*.⁷

These two forms subcategorize only for a plural noun, as in,

⁵ Quirk, p. 138.

2.69) These houses

2.70) Those bears

They cannot subcategorize for a singular or mass noun, thus,

2.71) *These bird

2.72) *Those milk

2.4.6 Group Five Determiners

This group of determiners consists of *a(n)*, *every*, *each*, *either*, and *neither*. These forms subcategorize only for a singular noun, thus,

2.73) A chicken

2.74) Every horse

They do not subcategorize for a plural or mass noun, as in,

2.75) *Each cows

2.76) *Neither air

2.4.7 Group Six Determiners

This group consists singly of *much*. *Much* can only subcategorize for a mass noun, therefore, the following,

2.77) Much water

2.78) *Much cat

2.79) *Much cats

2.4.8 Summary of English Subcategorization Restrictions

The six groups of English determiners in relation to subcategorization restrictions can be summarized in terms of subcategorization frames, thus

⁶This form would be acceptable as a vocative case construction.

⁷ Quirk, p. 138.

Group 1: *the, no, whose, which, what, some* (when stressed), *any* (when stressed), and the possessives

X	X
X	

Group 2: *ø, some* (when unstressed), *any* (when unstressed), and *enough*

	X
X	

Group 3: *this* and *that*

X	X

Group 4: *these* and *those*⁸

X	

Group 5: *a(n), every, each, either*, and *neither*

X	

⁸ *Many* is not included in Quirk's list, and is therefore not included here.

Group 6: *much*

	X

English determiners obey sub-categorization restrictions, just as was expected, based on the fourth universal.

2.5 Phonology of English Determiners

Six of the seven natural classes of English determiners are not constrained by any phonological alternations. The seventh class, the articles, is constrained only slightly. The two physically realized articles in English, *the* and *a(n)*, are phonologically conditioned by the initial segment of the following word. If the initial segment is a consonant then they are manifested thus,

2.80) The bird /ðə bɜrd/

2.81) A cat /ə kæt/

If the initial segment of the following word is a vowel, then the article manifests itself in the following way,

2.82) The ant /ði ænt/

2.83) An eagle /æn ɪgəl/

The phonological form of the determiner is conditioned by the initial segment of the following word, not of the head noun, thus,

2.84) The old man /ði old mæn/

2.85) A little ant /ə lɪtəl ænt/

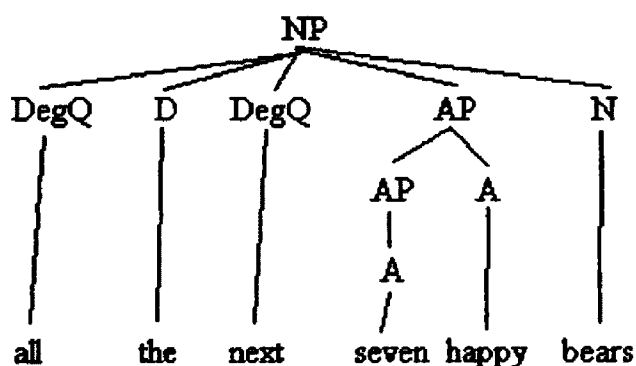
2.6 Morphology of English Determiners

English determiners bear no morphological marking.

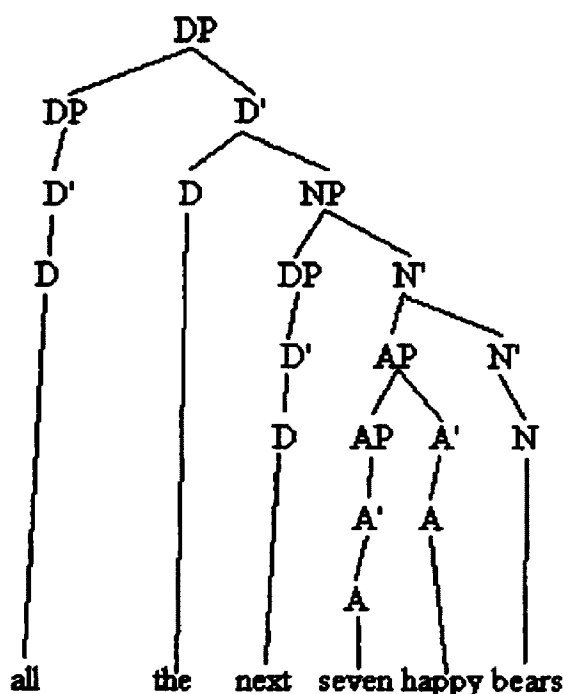
2.7 Syntax of English Determiners

How the syntax of determiners in English functions has been a fluid topic. The ideas of how the determiner is related to its head noun have changed considerably and frequently over the years. Some of the most significant advances in the structure of the determiner-noun relationship have been made by the Generativists. According to the earliest generative grammar theories in the 1950's and sixties, the noun phrase "all the next seven happy bears" would have been represented in the following way,

Figure 2.4



In 1987, Steven Abney proposed a Determiner Phrase Structure, which was dealt with briefly in chapter one. This DP analysis would produce the following tree of English determiner occurrence.



2.8 Summary of English Determiner Usage

English exhibits all of the characteristics expected of a UUU language. It possesses qualifiers, definite articles, and indefinite articles. None of these classes are inflected for number, gender, or case.

The evidence presented in English is also consistent with the proposed universals. English has qualifiers, which is consistent with the first universal. English has indefinite articles and also has definite articles. This is consistent with the second universal. All three of the determiner classes in English are uninflected, which correlates with the third universal. In regard to the fourth universal, English determiners are restricted by co-occurrence restrictions, ordering restrictions, and sub-categorization restrictions.

3 Russian Determiners

3.1 Overview of Russian Determiners

Russian has an INN structure, wherein, the qualifiers are inflected and there are no definite or indefinite articles (This would be a type two language in my scheme.).

According to Russian grammarians and language texts, Russian has no articles, but it does have five special modifiers, four of which are closely related to independent nominal modifiers. These special modifiers correspond to what American linguists classify as determiners.

3.1.1 The Special Modifiers¹

The five special modifiers pattern together and are один /odin/ *one*, весь /vesʲ/ *all*, этот /etot/ *this*, тот /tot/ *that*, and чей /tʃej/ *whose*.

3.1.1.1 Один /odin/ *one*

Один operates primarily as a numeral modifier, as in

3.1) один портфель /odin portfelʲ/ *one bookbag*.

The complete paradigm of the indefinite nominal modifier in the nominative case is as follows:

один /odin/ - one, masculine один дом /odin dom/ *one house*

одна /odna/ - one, feminine одна книга /odna kniga/ *one book*

одно /odno/ - one, neuter одно ведро /odno vedro/ *one bucket*

одни /odni/ - only; alone, plural одни люди /odni lyudi/ *only people*

Один, the special modifier is closely related to the numeral один, which has the same

¹The following is adapted from V. Kostomarov. *Russian for Everybody*. Moscow: Russky Yazik, 1992.

phonological form, the same meaning, but follows different co-occurrence restrictions and is uninflected.

3.1.1.2 *Весь* /vesʲ/ *all*

Весь can be used in two different ways. First it can be used with a temporal noun, as in

3.2) *весь вечер* /vesʲ vetʃer/ *all evening*. It can also be used with a mass noun, such as *вода*, as in

3.3) *вся вода* /vesʲ voda/ *all the water*.

The complete paradigm of the indefinite temporal/mass nominal modifier in the nominative is as follows:

весь /vecʲ/ - all, masculine *весь вечер* /vesʲ vetʃer/ *all evening*

вся /vsa/ - all, feminine *вся вода* /vsa voda/ *all water*

всё /vcʲo/ - all, neuter *всё мясо* /vcʲo myaso/ *all meat*

все /vce/ - all, plural *все книги* /vce knigi/ *all books*

This determiner is related to the independent pronouns, *всё* /vsʲo/ *everything* and *все* /vsʲe/ *everybody*. Neither of these pronouns obey co-occurrence restrictions, nor are they inflected, thus they occur in the following way,

3.4) *всё красное* /vsʲo krasnoje/ *everything is red*.

3.5) *все старые* /vsʲe staruije/ *everyone is old*

3.1.1.3 *Этом* /etot/ *this*

The third special modifier, *этот* /etot/ (*this*) is derived from the independent pronoun, *это*. *Этот* follows the same pattern as the previous two special modifiers, as in

3.6) *эта книга* /eta kniga/ *this book*.

The definite special modifier has the following forms in the nominative case:

этот /etot/ - this, masculine *этот магазин* /etot magazin/ *this store*

эта /eta/ - this, feminine *эта песня* /eta pesnya/ *this song*

это /eto/ - this, neuter *это окно* /eto okno/ *this window*

эти /eti/ - these, plural *эти поезда* /eti poezda/ *these trains*

This special modifier is closely related to the demonstrative pronoun *это* /eto/ *this*.

This independent pronoun follows no co-occurrence restrictions, and is uninflected, thus

3.7) *это дом* /eto dom/ *this is a house* (m.)

3.8) *это машина* /eto mashina/ *this is a car* (f.)

3.9) *это окно* /eto okno/ *this is a window* (n.)

3.10) *это птицы* /eto ptitsy/ *these are birds*, (pl.)

3.1.1.4 *Тот*

The far definite special modifier is *тот* /tot/ *that*. It functions in the same way as the previous three special modifiers, as in

3.11) *то окно* /to okno/ *that window*

The complete nominative paradigm of *тот* is as follows:

тот /tot/ - that, masculine тот сад /tot sad/ *that garden*

та /ta/ - that, feminine та школа /ta ʃkola/ *that school*

то /to/ - that, neuter то письмо /to pis'mo/ *that letter*

те /te/ - that, plural те библиотеки /te biblioteki/ *those libraries*

Тот is related to the far definite independent pronoun то /to/ *that*, which does not obey co-occurrence restrictions, and is uninflected.

3.1.1.5 Чей

Russian also has an interrogative special modifier, чей /tʃej/ *whose*. This modifier works in the same manner as the other four special modifiers, thus

3.12) чьи книги /tʃ'i knigi/ *whose books*

The nominative paradigm of чей is as follows:

чей /tʃej/ - whose, masculine чей магазин /tʃej magazin/ *whose store*

чья /tʃ'a/ - whose, feminine чья газета /tʃ'a gazyeta/ *whose newspaper*

чье /tʃ'o/ whose, neuter чье пальто /tʃ'o palto/ *whose coat*

чьи /tʃ'i/ whose, plural чьи дома /tʃ'i doma/ *whose houses*

The special modifiers are inflected for gender and number. Thus if the special modifier is modifying a feminine singular noun, then the feminine form must be used,

3.13) одна машина, *one car*, for example.

The same applies to весь. It must be specified for the same gender and number as the noun it modifies, i.e.

3.14) все дни /vse dni/ *all days*.²

Этот functions the same way. Thus, in the following Noun Phrase

3.15) это яблоко /eto yabloko/ *this apple*.

The indefinite and mass special modifiers pattern together as follows: один вечер /odin vetser/ *one evening* весь вечер /vecʲ vetser/ *all evening*, etc. The special modifiers are also inflected for case, but this will be discussed later.

The special modifier это patterns with один and весь as follows: эта машина новая /eta mašina novaja/, *this car is new*. It does not have to occur in an equational sentence as with это, for example,

3.16) Эта женщина работает на заводе /eta ženščina rabotajet na zavode/ *this woman works in the factory*.

3.2 Phonology of Russian Determiners

Russian determiners do not change their form based upon their phonological environment. Thus, the form of the special modifier remains constant whatever the initial segment of the following word. They do not assimilate in voicing, as in,

3.17) это ведро /eto vedro/ *this bucket*

3.18) это письмо /eto pisʲmo/ *this letter*

3.19) это окно /eto okno/ *this window*

Or in place of articulation

3.20) один магазин /odin magazin/ *one store*

²It should be noted that gender is neutralized in the plural in Russian.

3.21) один спорт /odin sport/ *one sport*

3.22) один год /odin god/ *one year*

3.3 Co-occurrence restrictions

The five special modifiers break into three distinct groups with regard to their co-occurrence restrictions. The members of each group are mutually exclusive with each other and cannot co-occur. The first group consists of один /odin/ and весь /vesʲ/, the second of этот /etot/ and тот /tot/, and the third of only чей /tʃej/, which patterns with the possessives.

3.3.1 Один and Весь

один and весь pattern together and can both co-occur with этот. For example,

3.23) весь этот вечер *all this evening*.

3.3.1.1 Co-occurrence restrictions with весь

Весь always occurs before the definite modifier, as in the previous example. It can also co-occur with the independent definite pronoun, это, as in

3.24) весь это мой /vecʲ eto moj/ *all this is mine*.

When co-occurring with the definite special modifier этот, весь must be inflected for gender and number. Thus,

3.25) вся эта вода /vsa eta voda/ *all this water*

is well formed, but

3.26) *всё это вода /vcʲo eto voda/ *all this is water*

is not. **Весь** can also co-occur with **тот** in much the same way. Again both premodifiers must agree with the noun in gender and number,

3.27) **все те люди** /vsʲe te lyudi/ *all those people*

3.28) **вся та вода** /vsʲa ta voda/ *all that water*

Весь can co-occur with numerals, as well, in the following manner,

3.29) **все три яблока** /vsʲe tri yabloka/ *all three apples*

It cannot co-occur following a numeral,

3.30) ***четыре все дома** /tʃetwure vsʲe doma/ *four all houses*

The final class of nominal modifier that **весь** can co-occur with is the adjective. It can co-occur with an adjective, as follows,

3.31) **все красные яблоки** /vsʲe krasnʲije yabloki/ *all red apples*

3.32) **вся красивая вода** /vsʲa krasivaya voda/ *all beautiful water*

It can also co-occur with **этот** and an adjective,

3.33) **все эти хорошие книги** /vsʲe ɛti xoroʃije knigi/ *all these good books*

or with **тот**,

3.34) **весь тот старый снег** /vesʲ tot starʲij sneg/ *all that old snow*

3.3.1.2 Co-occurrence restrictions with **один**

Один follows the same basic co-occurrence pattern as **весь**, with a few exceptions.

First, it can co-occur with **этот**, but it must occur between **этот** and the noun or adjective, thus

3.35) **этот один портфель** /ɛtot odin portfelʲ/ *this one bookbag*

is grammatical, but

3.36) *одна эта машина /odna ɛta maʃina/ *this car alone*

is not. Contrary to logical thought, Один can co-occur with the numerals in the plural as in,

3.37) одни пять школ /odni pyatʲ ʃkol/ *only five schools*

Один can do this because it can also convey the meaning *only*. It cannot occur in the singular with another numeral since in the singular, it takes on the properties of a numeral, also, no other numeral can occur with the singular.

3.3.2 Этот and Тот

3.3.2.1 Co-occurrence restrictions with Этот

Этот can co-occur with весь and один as described above. It can co-occur with all adjectives, but not with тот or чей. Thus,

3.38) вся эта вода /vsʲa ɛta voda/ *all this water*

and

3.39) это одно окно /ɛto odno okno/ *this one window*

are grammatically correct, but

3.40) *этот тот дом /ɛtot tot dom/ *this that house*

3.41) *чья эта школа /tʃʲa ɛta ʃkola/ *whose this school*

are unacceptable.

Этот can also co-occur with all numerals, as in

3.42) эти три книги /ɛti tri knigi/ *these three books*

3.43) эти шесть дны /ɛti ʃestʲ dnuɪ/ *these six days*

It can also co-occur with any numeral and один in the plural in the following manner

3.44) одни эти пять птиц /odni eti pjatʲ ptitsu/ *only these five birds*

As noted above, этот can also co-occur with any adjective, in any gender or number,

3.45) эта белая книга /eta belaja kniga/ *this white book*

3.46) это одно ведро /eto odno vedro/ *this one bucket*

3.47) один этот зеленый гараж /odin etot zelenui/ *only this green garage*

3.48) все эти письма /vsʲe eti picʲma/ *all these letters*

3.3.2.2 Co-occurrence restrictions with Тот

Тот follows the same co-occurrence restrictions as этот. It can occur with both один and весь, but not with этот or чей, thus,

3.49) тот сад /tot sad/ *that garden*

3.50) та одна машина /ta odna maʃina/ *that one car*

3.51) одно то мясо /odno to mʲaso/ *only that meat*

3.52) всё то мясо /vsʲo to mʲaso/ *all that meat*

3.53) все те комнаты /vsʲe te komnatui/ *all those rooms*

but not,

3.54) *та эта газета /ta eta gazʲeta/ *that this newspaper*

3.55) *чей тот номер /tʃej tot nomer/ *whose that number*

It can co-occur with all adjectives and numerals, thus

3.56) тот русский лес /tot russkij lʲes/ *that Russian forest*

3.57) те три ведра /te tri vedro/ *those three buckets*

or, it can co-occur with один or весь and an adjective and a numeral, as in

3.58) одни те старые врачи /odin te staruŭi'e vratŭi/ *only those old doctors*

3.59) весь тот зеленый лед /ves' tot zelenuŭij led/ *all that green ice*

3.60) все те шесть бабушек /vs'e te babuŭski/ *all those six grandmothers*

3.61) одни те пять цветков /odni te pjat' tsbetkovi/ *only those five
flowers*

3.3.3 Co-occurrence Restrictions with Чей

Чей forms its own group of special modifier. It does not pattern with any of the other four special modifiers, but it does pattern with the possessive pronouns. Чей cannot co-occur with any of the other special modifiers, nor can it co-occur with a possessive modifier. Thus, the following are ungrammatical,

3.62) *чьё моё яблоко /tŭ'o mojo jabloko/ *whose my apple*

3.63) *чья одна машина /tŭ'a odna maŭina/ *whose one car*

3.64) *чей этот дом /tŭej etot dom/ *whose this house*

It can co-occur only with an adjective, thus

3.65) чье плохие дети /tŭ'e ploxi'e deti/ *whose bad children*

or a numeral thus,

3.66) чье пять книг /tŭ'e pjat' knigu/ *whose five books*

or both thus,

3.67) чье три синих яблока /tŭ'e tri siniu jabloka/ *whose three blue
apples*

3.3.4 Possessives

Possessives are nominal elements that modify a noun. They are genitive case forms, and indicate possession. They are formed in the same manner as adjectives; however, they do not follow the same co-occurrence restrictions. They pattern closely with the special modifier, *чей*. Possessives cannot co-occur with *этот*, *тот*, or *чей*, but they can co-occur with *весь* and *один*, as in

3.68) *вся её вода* /vsʲa yeyo voda/ *all her water*

3.69) *одно их пальто* /odno ix palʲto/ *only their coat*

Possessives can also co-occur with adjectives and numerals, thus

3.70) *наша красная кухня* /naʃa krasnaja kuxnʲa/ *our red kitchen*

3.71) *твои четыре большие комнаты* /tvoji tʃetvire bolʲšije komnatʲi/
your four big rooms

3.3.5 Order of Occurrence of Nominal Premodifiers

As in many languages, the nominal premodifiers in Russian obey certain ordering rules in addition to their co-occurrence restrictions. These restrictions apply as follows,

один/весь	этот/тот	numerals	adjectives	head noun
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Thus a Noun Phrase could be produced in either of the following ways,

3.72) *одни эти три маленькие комнаты* /odin eti tri malenʲkije komnatʲi/ *only these three small rooms*

3.73) *чьи шесть новые птицы* /tʃʲi ʃestʲ novʲiije ptitsʲi/ *whose six new birds*

3.4 Subcategorization Restrictions

The Russian special modifiers break into different groupings with regard to subcategorization restrictions.³ Этот and тот pattern with один and чей. Весь patterns by itself.

3.4.1 Этот, тот, один, and чей Subcategorization restrictions

These two special modifiers pattern together exactly. These two modifiers have the least limited subcategorization restrictions. They subcategorize for a noun that is either singular, plural, or mass. Therefore, all three of the following are correct,

3.74) этот дом /etot dom/ *this house*

3.75) эти дома /eti doma/ *these houses*

3.76) этот снег /etot sneg/ *this snow*

These same restrictions apply to тот, as in,

3.77) та машина /ta mašina/ *that car*

3.78) те машины /te mašiny/ *those cars*

3.79) та вода /ta voda/ *that water*

Один patterns just as этот and тот do. It subcategorizes for either a singular, plural, or mass noun, as in

3.80) один вечер /odin vetšer/ *one evening*

3.81) одни вечера /odni vtšera/ *only evenings*

3.82) один дождь /odin došt/ *only rain*

³ Quirk's subcategorization frame is not necessary to represent Russian determiner subcategorization restrictions, due to the small number of forms in Russian, and that they do not form natural subcategorization classes.

Чей patterns in much the same way, as in

3.83) чьё ведро /tʃʲo vɛdro/ *whose bucket*

3.84) чье ведра /tʃʲe vɛdra/ *whose buckets*

3.85) чьё мясо /tʃʲo mʲaso/ *whose meat*

3.4.2 Бесъ Subcategorization restrictions

Бесъ follows a more restricted set of subcategorization restrictions than the previous three special modifiers. It can subcategorize for a plural noun or a mass noun, but not for a singular noun, thus

3.86) *вся книга /vsʲa kniga/ *all book*

3.87) все книги /vsʲe knigi/ *all books*

3.88) вся вода /vsʲa voda/ *all water*

3.5 Morphology of Special Modifiers

The special modifiers must be specified for gender, number and case with inflectional suffixes. These suffixes are based on the adjectival suffixes that specify the same information. That is, the special modifiers are marked with modified adjective suffixes.

3.5.1 Basic Nominal Suffixes

Before one can adequately describe the morphology of Russian special modifiers, a description of the basic nominal endings may be necessary. All of the prenominal modifiers take their inflectional properties from the head noun, and all of these inflectional endings are derived from the noun suffixes.

3.5.1.1 Masculine Gender

The Masculine Gender is marked with *-ø*. Since all Russian suffixes are vowel initial, this means that a masculine noun will end in a consonant as in магазин /magazin/ *store* or портфель /portfelʲ/ *bookbag*. No nominative case, masculine noun ends in a vowel.

3.5.1.2 Feminine Gender

The feminine gender is usually marked with the suffix vowel *-a*, as in машина /maʃina/ *car* or книга /kniga/ *book*. In some cases it can be marked with the suffix *-ja*, as in Азия /aziʲa/ *Asia*. In other cases the marker can become *-ʲa*, as in няня /nʲanʲa/ *nurse* or кухня /kuxnʲa/ *kitchen*.

3.5.1.3 Neuter Gender

The default ending for a neuter noun is *-o*, as in ведро /vedro/ *bucket* or мясо /mʲaso/ *meat*. In some cases it undergoes the same phonological transformations as the feminine. The ending can become *-jo*, *-ʲo*, or *-je* in various circumstances.

3.5.1.4 Plurals

Masculine and feminine gender distinctions are neutralized in Russian plurals. Thus, there is not a masculine or feminine plural. There is simply plural. The basic morpheme denoting plural in Russian is *-i*. This morpheme can also surface as *-je* or *-ix*. Neither of these forms appear to occur predictably, thus it is probable that there are three distinct plural morphemes in Russian; however, this question is beyond the scope of this paper. The basic neuter plural suffix is *-a*. In a few circumstances the neuter suffix shows up in

the masculine, for example, дома /doma/ *houses*.

3.5.2 Adjective Endings

The adjective endings for specification of gender and number are as follows:

-ый /-ɯij/ masculine adjective marker - новый дом /novɯij dom/ *new house*

-ий /-ij/ masculine adjective marker - хороший сад /xorɔɟij sad/ *good garden*

-ая /-aja/ feminine adjective marker - красивая школа /krasivaja ʃkola/ *beautiful school*

-ое /-oje/ neuter adjective marker - старое пальто /staroje palʲto/ *old coat*

-ее /-eje/ neuter adjective marker - последнее ведро /posledneje vedro/ *last bucket*

-ые /-ɯije/ plural adjective marker - иностранные профессора

/inostrannɯije professora/ *foreign professors*

-ие /-ije/ plural adjective marker - русские языки /rusckije jaziki/ *Russian languages*

3.5.3 Determiner Gender and Plural markers

The determiners are specified with similar suffixes to those used by the adjectives.

The five special modifiers are marked for gender and number in several ways.

3.5.3.1 Gender and Plural Markers with Один

Один has the root form of /odn/. In the masculine form an /i/ is inserted to form a second syllable.⁴ Then the endings are added in the other two gender forms and in the plural, thus

3.89) /odn+a/ one+fem

⁴This insertion occurs in order to satisfy Russian syllable structure, but the details of this are not pertinent to this paper.

3.90) /odn+o/ one+neut

3.91) /odn+i/ one+plur

3.5.3.2 Gender and Plural Markers with *Becb*

Бecb has the root form /vs^j/. In the masculine /e/ is inserted to satisfy the syllable structure of Russian. The other forms are marked as follows

3.92) /vs^j+a/ all+fem.

3.93) /vs^j+o/ all+neut.

3.94) /vs^j+e/ all+plur.

3.5.3.3 Gender and Plural Markers with *Эmom*

Эmom has the root form /εt/. The suffix markers are applied as follows

3.95) /εt+ot/ this+masc.

3.96) /εt+a/ this+fem.

3.97) /εt+o/ this+neut.

3.98) /εt+i/ this+plur.

3.5.3.4 Gender and Plural Markers with *Tom*

Tom has the root form /t/. The gender and plural markings are applied as follows,

3.99) /t+ot/ that+masc.

3.100) /t+a/ that+fem.

3.101) /t+o/ that+neut.

3.102) /t+e/ that+plur.

3.5.3.5 Gender and Plural Markers with Чеŭ

Чеŭ has the root form /tʃj/. In the masculine form the /e/ is inserted in order to fulfill the requirements of Russian syllable structure. The other three forms are formed as follows

3.103) /tʃⁱ+a/ whose+fem.

3.104) /tʃⁱ+o/ whose+neut.

3.105) /tʃⁱ+e/ whose+plur.

3.6 Special Modifiers and Case

Russian special modifiers must agree with the head noun in number, gender, and case. The suffixes used to mark case in special modifiers are based on the adjectival case markers, which are, in turn based on the basic nominal paradigm

3.6.1 Noun Case Marking

Russian nominals are marked for six cases, nominative, accusative, genitive, prepositional, dative, and instrumental. The basic nominal forms of these suffixes are as follows.

3.6.1.1 Masculine Case Markers

The masculine case markers are as follows. The masculine noun человек /tʃelovek/ *person* will be used to demonstrate the various case endings in the following examples:

/-ø/ denotes the nominative case singular, as in,

3.106) человек работает в школе /tʃelovek rabotajet v ʃkole/ *the person works in the school*

/-ø/ also represents the accusative case singular, as in,

3.107) Иван видит человека /ivan vidit tseloveka/ *Ivan sees the person*

/-a/ denotes the genitive case singular, as in

3.108) вот книга человека /vot kniga tseloveka/ *here is the person's book*

(book of the person)

/-e/ denotes prepositional case singular, thus

3.109) я знаю о человеке /ja znaju tseloveke/ *I know about the person*

/-u/ marks the dative case singular, as in,

3.110) я дам книгу человеку /ja dam knigu tseloveku/ *I give a book to*

the person

/-om/ represents the instrumental case singular

3.111) женщина идёт с человеком /zenʃina idʲot s tselovekom/ *the*

woman goes (walks) with the person

/-ui/ denotes the nominative case plural, as in,

3.112) люди идут в школу /ljudi idut v školu/ *the people go*

to school.

/-ui/ marks the accusative case plural, thus,

3.113) бабушка смотрит на человека /babuška smotret na tselovekov/

the grandmother watches the person

/-ø/ represents the genitive case plural,

3.114) я вижу туфли человека /ja vizu tufli tseloveka/ *I see the*

persons' shoes (shoes of the person)

/-ax/ marks the prepositional case plural, as in,

3.115) он понимает о людях /on ponimajet o ljudax/ *he understands
about the people*

/-am/ denotes the dative case plural, thus,

3.116) она едет к людям /ona jed'et k ljud'am/ *she rides to the persons*

/-ami/ marks the instrumental case plural,

3.117) мы работаем с людьми /mʃi rabotajet s tselovekami/ *we
work with the persons*

3.6.1.2 Neuter Case Markers

The neuter case markers are almost identical to the masculine ones. There are, however, a few notable exceptions, which will be outlined in the following section. In this section, the noun ведро /vedro/ *bucket* will be used to demonstrate the neuter case endings.

/-o/ denotes the nominative case singular, as in,

3.118) ведро новое /vedro novoje/ *the bucket is new*

/-o/ also denotes the accusative case singular, as in,

3.119) шофёр ударит ведро /ʃoɤ'or udarit vedro/ *the driver hits the
bucket*

/-a/ marks the genitive case singular, thus,

3.120) я вижу билет ведра /ja vidʒu bilet vedra/ *I see the bucket's ticket*

/-e/ represents the prepositional case singular, as in,

3.121) ты знаешь о ведре /tʉi znajɛʃʲ o vedre/ *you know about the bucket*

/-u/ denotes the dative case singular, as in,

3.122) я кладу книгу в ведро /ja kladu knigu v vedro/ *I put the book in the bucket*

/-om/ marks the instrumental case singular,

3.123) он читал с ведром /on tʃital s vedrom/ *he read with the bucket*⁵

/-a/ marks the nominative case plural, as in,

3.124) ведра были белые /vedra buili beluije/ *the buckets were white*

/-a/ also denotes the accusative case plural, thus,

3.125) он видит ведра /on vidjet vedra/ *he sees the buckets*

/-ø/ denotes the genitive plural, as in,

3.126) человека ведро старое /tʃeloveka vedro staroje/ *the bucket's man is old*

/-ax/ marks the prepositional case plural,

3.127) я кладу яблоки в ведра /ja kladu jabloki v vedra/ *I put the apples in the buckets*

/-am/ represents the dative case plural, as in,

3.128) я иду к ведру /ja idu k vedru/ *I walk to the bucket*

⁵Many example sentences are grammatically correct, even if they are anomalous. These examples are used in order to express the morphological properties of the neuter gender in Russian, which has no animate members.

/-ami/ marks the instrumental case plural, thus,

3.129) он идѐт с ведрами /on idʲot s vedrami/ *he walks with the buckets*

3.6.1.3 Feminine Case Markers

The feminine case markers are very similar to the neuter and masculine ones.

However, they differ slightly in almost every instance. The feminine noun машина /maʃina/ *car* will be used in the following section to demonstrate the feminine case markers

/-a/ marks the nominative singular, as in,

3.130) машина была красивая /maʃina buʎla krasivaja/ *the car was beautiful*

/-u/ denotes the accusative singular, thus,

3.131) человек ударит машину /tʃelovek udarit maʃinu/ *the man hits the car*

/-uʃi/ marks the genitive case singular,

3.132) я видел колесо машины /ja vidʒu koleco maʃinuʃi/ *I saw the car's wheel*

/-e/ indicates the prepositional case singular, as in,

3.133) она работает в машине /ona rabotajet v maʃine/ *she works in the car*

/-e/ also marks the dative case singular, as in,

3.134) учитель едет к машине /utʃitelʲ jedet maʃine/ *the teacher rides to*

the car

/-oj/ denotes the instrumental case singular, thus,

3.135) женщина едет с машиной /zenʃina jedet s maʃinoj/ *the woman*

rides with the car

/-ui/ represents the nominative case plural,

3.136) машины были белые /maʃinuɪ buɪlu beluɪje/ *the cars were white*

/-i/ marks the accusative case plural, as in,

3.137) он видел машины /on videl maʃinuɪ/ *he saw the cars*

/-ø/ indicates the genitive case plural, thus,

3.138) птица ударит шофёры машин /ptitsa udarit ʃoʃʔori maʃin/ *the bird*

hits the cars' drivers

/-ax/ marks the prepositional case plural, just as in the masculine and neuter forms,

thus,

3.139) вы знаете о машинах /vui znajete o maʃinax/ *you (pl.) know*

about the cars

/-am/ denotes the dative case plural, as in,

3.140) я дам шофёры машинам /ja dam ʃoʃʔoruɪ maʃinam/ *I will give*

drivers to the cars

/-ami/ represents the instrumental case plural,

3.141) Иван ехал с машинами /ivan jexal s maʃinami/ *Ivan rode with the*

cars

3.6.2 Adjective Case Marking

Adjectives must agree in gender, number, and case with the nouns they modify. The adjectival case markers are similar to their nominal counterparts, but with a few distinct differences that will be discussed later. The complete paradigm of adjectival endings using **новый** /novʃij/ *new* is as follows:

Case	Masculine	Feminine	Neuter	Plural
Nom.	новый /novʃij/	новая /novaja/	новое /novoje/	новые /novʃije/
Acc, inan.	новый /novʃij/	новую /novuju/	новое /novoje/	новые /novʃije/
Acc, anim.	нового /novogo/	новую /novuju/	новое /novoje/	новых /novʃix/
Gen.	нового /novogo/	новой /novoj/	нового /novogo/	новых /novʃix/
Prep.	новом /novom/	новой /novoj/	новом /novom/	новых /novʃix/
Dat.	новому /novomu/	новой /novoj/	новому /novomu/	новым /novʃim/
Instr.	новым /novʃim/	новой /novoj/	новым /novʃim/	новыми /novʃimi/

The first difference of note is that the adjectives do not distinguish gender in the plural, thus, the masculine, feminine, and neuter plurals take the same form. The second difference is that in some forms there is a distinction between the animate and inanimate nouns in the accusative case. These two differences will carry over to the case marking of the special modifiers.

3.6.3 Special Modifier Case Markers

The special modifiers, possessives and ordinal numbers pattern together with the adjectives, using almost identical suffix forms. All of these determiners must agree with their head noun in number, gender, and case just as the adjectives do. All can occur in all six cases, and with all three genders and the plural. A detailed description of the case modification of the Russian determiners follows.

3.6.3.1 Case Marking with *Этот* and *Тот*

Этот and *Тот* pattern together exactly, with the exception of the instrumental case and the nominative case plural; therefore, they will be dealt with together. In the nominative case they occur in the following ways,

Masculine

3.142) *этот человек был русским* /*etot tselovek buil ruskim*/ *this*

person was Russian

3.143) *тот человек был русским* /*tot tselovek buil ruskim*/ *that person*

was Russian

Feminine

3.144) *эта птица была русским* /*eta ptitsa buila ruskam*/ *this bird was*

Russian

3.145) *та птица была русским* /*ta ptitsa buila ruskam*/ *that bird was*

Russian

Neuter

3.146) *это письмо было русским* /*eto pic'mo builo ruskom*/ *this letter*

was Russian

3.147) *то письмо было русским* /*to pic'mo builo ruskom*/ *that letter was*

Russian

Plural

3.148) *эти машины были русским* /*eti mafini buili ruskim*/ *these cars*

were Russian

3.149) те машины были русским /te maʃini buili ruskim/ *those cars*
were Russian

It is of limited interest that in the nominative plural these two demonstrative special modifiers do not share the same form, *этот* takes the suffix /-i/, and *тот* takes the suffix /-e/ to denote the plural, but this is not pertinent to this paper.

In the accusative case these special modifiers can occur as follows,

Masculine Inanimate

3.150) человек ударит этот самолёт /tʃelovek ydarit etot ʃamolʲot/ *the*
man hits this airplane

3.151) человек ударит тот самолёт /tʃelovek ydarit tot ʃamolʲot/ *the*
man hits that airplane

Masculine Animate

3.152) человек ударит этого отец /tʃelovek ydarit etogo otʲets/ *the man*
hits this father

3.153) человек ударит того отец /tʃelovek ydarit togo otʲets/ *the man*
hits that father

Feminine

3.154) человек ударит эту школу /tʃelovek ydarit etu ʃkolu/ *the man*
hits this school

3.155) человек ударит ту школу /tʃelovek ydarit tu ʃkolu/ *the man hits*
that school

Neuter

3.156) человек ударит это пальто /tʃelovek ydarit eto palʲto/ *the man hits this coat*

3.157) человек ударит то пальто /tʃelovek ydarit to palʲto/ *the man hits that coat*

Plural Inanimate

3.158) человек ударит эти книги /tʃelovek ydarit eti knigi/ *the man hits these books*

3.159) человек ударит те книги /tʃelovek ydarit te knigi/ *the man hits those books*

Plural Animate

3.160) человек ударит этих брати /tʃelovek ydarit etix brati/ *the man hits these brothers*

3.161) человек ударит тех брати /tʃelovek ydarit tex brati/ *the man hits those brothers*

In the genitive case these two determiners can occur in the following ways,

Masculine

3.162) я видел книги этого человека /ja videl knigi etogo tʃeloveka/ *I saw this man's books*

3.163) я видел книги того человека /ja videl knigi togo tʃeloveka/ *I saw that man's books*

Feminine

3.164) я видел книги этой птицы /ja videl knigi etoj ptitsui/ *I saw this bird's books*

3.165) я видел книги той птицы /ja videl knigi toj ptitsui/ *I saw that bird's books*

Neuter

3.166) я видел книги этого ведра /ja videl knigi etogo vedra/ *I saw this bucket's books*

3.167) я видел книги того ведра /ja videl knigi togo vedra/ *I saw that bucket's books*

Plural

3.168) я видел книги этих женщины /ja videl knigi etix zenʃini/ *I saw these women's books*

3.169) я видел книги тех женщины /ja videl knigi tex zenʃini/ *I saw those women's books*

The prepositional forms are manifested in the following ways,

Masculine

3.170) учитель знает об этом доме /utʃitelʲ znajet ob etom dome/ *the teacher knows about this house*

3.171) учитель знает о том доме /utʃitelʲ znajet o tom dome/ *the teacher knows about that house*

Feminine

3.172) учитель знает об этой машине /utʃitelʲ znajet ob etoj maʃine/

the teacher knows about this car

3.173) учитель знает о той машине /utʃitelʲ znajet o toj maʃine/ *the*

teacher knows about that car

Neuter

3.174) учитель знает об этом письме /utʃitelʲ znajet ob etom picʲme/

the teacher knows about this letter

3.175) учитель знает о том письме /utʃitelʲ znajet o tom picʲme/ *the*

teacher knows about that letter

Plural

3.176) учитель знает об этих туфлях /utʃitelʲ znajet ob etix tuflʲix/

the teacher knows about these shoes

3.177) учитель знает о тех туфлях /utʃitelʲ znajet o tex tuflʲix/ *the*

teacher knows about those shoes

In the dative case these special modifiers occur thus,

Masculine

3.178) она даст яблоко этому соседу /ona dast jabloko etomu sosedu/

she will give the apple to this neighbor

3.179) она даст яблоко тому соседу /ona dast jabloko tomu sosedu/

she will give the apple to that neighbor

Feminine

3.180) она даст яблоко этой женщине /ona dast jabloko etoj zenšine/

she will give the apple to this woman

3.181) она даст яблоко той женщине /ona dast jabloko toj zenšine/ *she*

will give the apple to that woman

Neuter

3.182) она даст яблоко этому ведру /ona dast jabloko etomu vedru/ *she*

will give the apple to this bucket

3.183) она даст яблоко тому ведру /ona dast jabloko tomu vedru/ *she*

will give the apple to that bucket

Plural

3.184) она даст яблоко этим птицам /ona dast jabloko etim ptitsam/

she will give the apple to these birds

3.185) она даст яблоко тем птицам /ona dast jabloko tem ptitsam/ *she*

will give the apple to those birds

The instrumental case is marked in the following ways,

Masculine

3.186) я иду с этим человеком /ja idy s etim tšelovekom/ *I go with*

this person

3.187) я иду с тем человеком /ja idy s tem tšelovekom/ *I go with that*

person

Feminine

3.188) я иду с этой женщиной /ja idy s etoj dzenʃinoj/ *I walk with this woman*

3.189) я иду с той женщиной /ja idy s toj dzenʃinoj/ *I walk with that woman*

Neuter

3.190) я иду с этим пальто́м /ja idy s etim palʲtom/ *I walk with this coat*

3.191) я иду с тем пальто́м /ja idy s tem palʲtom/ *I walk with that coat*

Plural

3.192) я иду с этими людьми /ja idy s etimi ljudʲami/ *I walk with these people*

3.193) я иду с теми людьми /ja idy s temi ljudʲami/ *I walk with those people*

3.6.3.2 Case Marking with Один

Один patterns only with itself with regards to case marking. The pattern is as follows, using the same sentence frames as with ЭТОТ and ТОТ.

Masculine

3.194) один человек русским /odin tʃelovek buɪl ruskim/ *one person is Russian*

Feminine

3.195) одна птица русская /odna ptitsa buɪla ruskaja/ *one bird is Russian*

Neuter

3.196) одно письмо русское /odno piśmo ruškoje/ *one letter is*

Russian

Plural

3.197) одни машины русские /odni mařini ruškije/ *only cars are*

Russian

In the accusative case this special modifier can occur as follows,

Masculine Inanimate

3.198) человек ударит один самолёт /třelovek ydarit odin řamol'ot/ *the*

man will hit one airplane

Masculine Animate

3.199) человек ударит одного отца /třelovek ydarit odnogo omtsa/ *the*

man will hit one father

Feminine

3.200) человек ударит одну школу /třelovek ydarit odnu řkolu/ *the man*

will hit one school

Neuter

3.201) человек ударит одно пальто /třelovek ydarit odno pal'to/ *the*

man will hit one coat

Plural Inanimate

3.202) человек ударит одни книги /třelovek ydarit odni knigi/ *the man*

will hit only books

Plural Animate

- 3.203) человек ударит одних братьев /tʃelovek ydarit odnix bratʃi/ *the man will hit only brothers*

In the genitive case this determiner can occur in the following ways,

Masculine

- 3.204) я видел книги одного человека /ja vidil knigi odnogo tʃeloveka/ *I saw one man's books*

Feminine

- 3.205) я видел книги одной птицы /ja vidil knigi odnoj ptitsʃi/ *I saw one bird's books*

Neuter

- 3.206) я видел книги одного ведра /ja vidil knigi odnogo vedra/ *I saw one bucket's books*

Plural

- 3.207) я видел книги одних женщины /ja vidil knigi odnix ʒenʃini/ *I saw only women's books*

The prepositional forms are manifested in the following ways,

Masculine

- 3.208) учитель знает об одном доме /utʃitelʲ znajet ob odnom dome/ *the teacher knows about one house*

Feminine

- 3.209) учитель знает об одной машине /utʃitelʲ znajet ob odnoj maʃine/

the teacher knows about one car

Neuter

3.210) учитель знает об одном письме /utʃitelʲ znajet ob odnom pisʲme/

the teacher knows about one letter

Plural

3.211) учитель знает об одних туфлах /utʃitelʲ znajet ob odnix tuflax/

the teacher knows about only shoes

In the dative case this special modifier occurs thus,

Masculine

3.212) она даст яблоко одному соседу /ona dast jabloko odnomu

sosedu/ *she will give the apple to one neighbor*

Feminine

3.213) она даст яблоко одной женщине /ona dast jabloko odnoj

ženʃine/ *she will give the apple to one woman*

Neuter

3.214) она даст яблоко одному ведру /ona dast jabloko odnomu vedru/

she will give the apple to one bucket

Plural

3.215) она даст яблоко одним птицам /ona dast jabloko odnim ptitsam/

she will give the apple to only birds

The instrumental case is marked in the following ways,

Masculine

3.216) я иду с одним человеком /ja idy s odnim tʃelovekom/ *I walk with one man*

Feminine

3.217) я иду с одной женщиной /ja idy s odnoj ženʃinoj/ *I walk with one woman*

Neuter

3.218) я иду с одним пальто́м /ja idy s odnim pal'tom/ *I walk with one coat*

Plural

3.219) я иду с одними челове́ки /ja idy s odnimi tʃeloveki/ *I walk with only people*

3.6.3.3 Case Marking with *Весь*

Весь is marked for case identically to *тог*, but due to its different subcategorization restrictions it must be dealt with separately. A similar set of sentence frames will be used to exemplify the case endings for *весь*.

Masculine

3.220) *весь лед русский /vesʲ led buɪl ruskij/ all ice is Russian*

Feminine

3.221) *вся вода была русская /vsʲa voda buɪla ruskaja/ all water was*

Russian

Neuter

3.222) *всё мясо было русское /vsʲo mʲaso buɪlo ruskoje/ all meat was*

Russian

Plural

3.223) *все машины были русские /vsʲe maʃinuɪ buɪli ruskije/ all cars*

were Russian

In the accusative case this special modifier can occur as follows,

Masculine Inanimate

3.224) *человек ударит весь воздух /tʃelovek ydarit vesʲ vozdux/ the*

person will hit all the air

Masculine Animate

3.225) *человек ударит всего соседа /tʃelovek ydarit vsʲego*

sos¹edevo/ *the person will hit all the neighbors*

Feminine

3.226) человек ударит всю чернилу /tʃelovek ydarit vsʲu tʃernilu/ *the person will hit all the ink*

Neuter

3.227) человек ударит всё мясо /tʃelovek ydarit vsʲo mʲaso/ *the person will hit all meat*

Plural Inanimate

3.228) человек ударит все книги /tʃelovek ydarit vsʲe knigi/ *the person will hit all the books*

Plural Animate

3.229) человек ударит всех братья /tʃelovek ydarit vsʲex bratʲi/ *the man hit all the brothers*

In the genitive case this determiner can occur in the following ways,

Masculine

3.230) я видел книгу всего льда /ja videl kniguvsʲego lʲda/ *I saw all the ice's book*

Feminine

3.231) я видел книгу всей воды /ja vide kniguvsʲej voɔui/ *I saw all the water's books*

Neuter

3.232) я видел книгу всего мяса /ja videl knigu vsʲego mʲasa/ *I saw all*

the meat's books

Plural

3.233) я видел книгу всех женщины /ja videl knigu vs^jex zen^jini/ *I*

saw all the women's books

The prepositional forms are manifested in the following ways,

Masculine

3.234) учитель знает о всем лде /ut^jitel^j znajet o vs^jem lde/ *the teacher*

knows about all the ice

Feminine

3.235) учитель знает о всей воде /ut^jitel^j znajet o vs^jej vode/ *the*

teacher knows about all the water

Neuter

3.236) учитель знает о всем мясе /ut^jitel^j znajet o vs^jem m^jase/ *the*

teacher knows about all the meat

Plural

3.237) учитель знает о всех туфлах /ut^jitel^j znajet o vs^jex tuflax/ *the*

teacher knows about all the shoes

In the dative case this special modifier occurs thus,

Masculine

3.238) она даст яблоко всему лду /ona dast jabloko vs^jemu ledu/ *she*

will give the apple to all the ice

Feminine

3.239) она даст яблоко всей траве /ona dast jabloko vs^jej trave/ *she*
will give the apple to all the grass

Neuter

3.240) она даст яблоко всему мясу /ona dast jabloko vs^jemu m^jasu/
she will give the apple to all the meat

Plural

3.241) она даст яблоко всем птицам /ona dast jabloko vs^jem ptitsam/
she will give the apple to all the birds

The instrumental case is marked in the following ways,

Masculine

3.242) я иду со всем космосом /ja idy so vs^jem kosmosom/ *I walk with*
all the cosmos

Feminine

3.243) я иду со всей травой /ja idy so vs^jej travoj/ *I walk with all the*
grass

Neuter

3.244) я иду со всем мясом /ja idy so vs^jem m^jasom/ *I walk with all the*
meat

Plural

3.245) я иду со всеми людьми /ja idy so vs^jemi ljud^jami/ *I walk with*
all the people

3.6.3.4 Case Marking with Чей

Чей follows its own pattern of case marking. Although the suffixes are based on the same root as with the other special modifiers, they are rarely the same forms with чей.

The case marking pattern is as follows,

Masculine

3.246) чей человек был русским /tʃej tʃelovek buɪl ruskij/ *whose person was Russian*

Feminine

3.247) чья птица была русская /tʃʲa ptitsa buɪla ruskaja/ *whose bird was Russian*

Neuter

3.248) чьё письмо было русское /tʃʲo pʲisʲmo buɪlo ruskoje/ *whose letter was Russian*

Plural

3.249) чьи машины были русские /tʃʲi maʃinɯɪ buɪli ruskije/ *whose cars were Russian*

In the accusative case this special modifier can occur as follows,

Masculine Inanimate

3.250) человек ударит чей самолёт /tʃelovek ydarit tʃej ʃamolʲot/ *the man will hit whose airplane*

Masculine Animate

3.251) человек ударит чьего отца /tʃelovek ydarit tʃʲego omtsa/ *the*

man will hit whose father

Feminine

3.252) человек ударит чью школу /tʃelovek ydarit tʃʲu ʃkolu/ *the man*

will hit whose school

Neuter

3.253) человек ударит чьё пальто /tʃelovek ydarit tʃʲo palʲto/ *the man*

will hit whose coat

Plural Inanimate

3.254) человек ударит чьи книги /tʃelovek ydarit tʃʲi knigi/ *the man*

will hit whose books

Plural Animate

3.255) человек ударит чьих братья /tʃelovek ydarit tʃʲix bratʲwi/ *the*

person will hit whose brothers

In the genitive case this determiner can occur in the following ways,

Masculine

3.256) я видел книги чьего человека /ja videl knigi tʃʲego tʃeloveka/ *I*

saw whose man's books

Feminine

3.257) я видел книги чьей птицы /ja videl knigi tsʲtʲ ptitswi/ *I saw*

whose bird's books

Neuter

3.258) я видел книги чьего ведра /ja videl knigi tʃʲego vedra/ *I saw*

whose bucket's books

Plural

3.259) я видел книги чьих женщины /ja videl knigi tʃix zenʃini/ *I saw*

whose women's books

The prepositional forms are manifested in the following ways,

Masculine

3.260) учитель знает о чьём доме /utʃitelʲ znajet o tʃjom dome/ *the*

teacher knows about whose house

Feminine

3.261) учитель знает о чьей машине /utʃitelʲ znajet o tʃjej maʃine/ *the*

teacher knows about whose car

Neuter

3.262) учитель знает о чьём письме /utʃitelʲ znajet o tʃjom picʲme/ *the*

teacher knows about whose letter

Plural

3.263) учитель знает о чьих туфлах /utʃitelʲ znajet o tʃix tuflax/ *the*

teacher knows about whose shoes

In the dative case this special modifier occurs thus,

Masculine

3.264) она даст яблоко чьему соседу /ona dast jabloko tʃjemu sosedu/

she will give the apple to whose neighbor

Feminine

3.265) она даст яблоко чьей женщине /ona dast jabloko tʃʲej zenʃine/

she will give the apple to whose woman

Neuter

3.266) она даст яблоко чьему ведру /ona dast jabloko tʃʲemu vedru/

she will give the apple to whose bucket

Plural

3.267) она даст яблоко чьим птицам /ona dast jabloko tʃʲim ptitsam/

she will give the apple to whose birds

The instrumental case is marked in the following ways,

Masculine

3.268) я иду с чьим человеком /ja idy s tʃʲim tʃelovekom/ *I walk with*

whose person

Feminine

3.269) я иду с чьей женщиной /ja idy s tʃʲʲj zenʃinoj/ *I walk with*

whose woman

Neuter

3.270) я иду с чьим пальтом /ja idy s tʃʲim palʲtom/ *I walk with whose*

coat

Plural

3.271) я иду с чьими людьми /ja idy s tʃimi ljudʲami/ *I walk with whose*

people

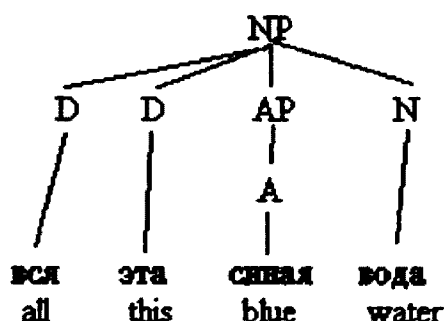
3.7 Syntax of Russian Determiners

In 1987, Steven Abney proposed the Determiner Phrase (DP). This provides three possible syntactic structures for the Russian Noun Phrase.

3.7.1 Transformational Grammar Structure

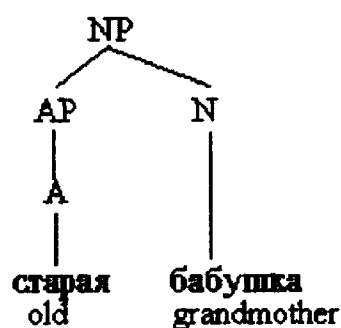
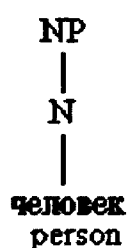
Following is a representation of the Noun Phrase (NP) **вся эта синяя вода**

/vsʲa eta sinjaja voda/ all this blue water



This structure has the added benefit of accurately representing an NP without any determiner modification, as in

or

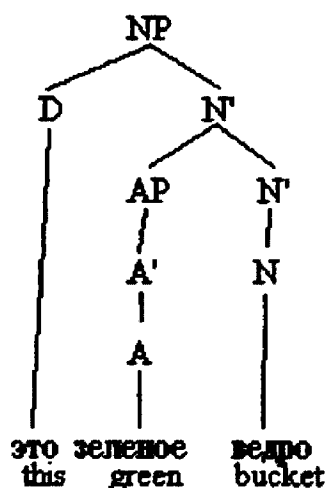


However, it does not accurately represent the relationships between the different constituents, in order to do that, a different theoretical structure is needed.

3.7.2 X-Bar Theory Structure

The following structure is based on the NP

3.272) это зеленое ведро /eto zelenoje vedro/ *this green bucket*



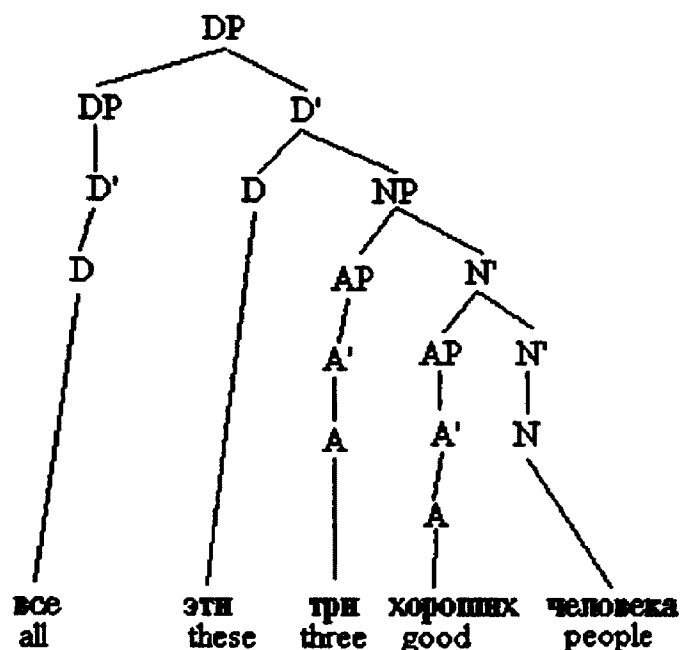
One problem with this structure is that it is difficult to represent a structure with multiple determiners such as, один этот русский сад /odin etot russkij sad/ *only this Russian garden*

3.7.3 Determiner Phrase Structure

This hypothesis is useful in representing multiple determiner structures, thus the co-occurrence and ordering restrictions can be mapped out accurately, as in the NP,

3.273) все эти три хороших человека /vs'e eti tri хороших tseloveka/

all these three good people



One problem presented by this structure is that it requires a determiner head of DP.

In Russian this would require an ambiguous \emptyset determiner, in all instances, where there is no phonetically produced determiner.

No syntactic representation is accurate to Russian Noun Phrase Structure, though each possible representation has benefits and disadvantages.

3.8 Summary of Russian Determiner Occurrence

The data presented in Russian is consistent with an INN language. Russian has qualifiers, which are inflected. It does not have definite or indefinite articles.

Russian is also consistent with the four proposed universals. It has qualifiers, consistent with universal one. It has no indefinite article, nor does it possess a definite article. This is consistent with universal two. The one occurring class is inflected, consistent with universal three. The Russian determiners are also constrained by co-occurrence restrictions, ordering restrictions, and subcategorization restrictions. This

corresponds with the expectation of universal four. Russian data is consistent with the proposed determiner types and with the proposed determiner universals.

4 German Determiners

4.1 Overview of German Determiners

German exhibits an III determiner structure, in which the qualifiers, definite and indefinite articles are all inflected. This is a type six language in my scheme. The agreed upon set that comprises German determiners is as follows¹,

der dieser

jener solcher

welcher aller

mancher ein

possessives ordinals

These determiners can be divided into eight subclasses. The first subclass contains only the definite article, *der* and all of its forms. The second consists of the demonstratives, *dieser*, this, *jener*, that, and *solcher*, such. The third subclass is made up of the interrogative, *welcher*, whose, which. The fourth subclass contains the quantifiers, *aller*, all, and the fifth contains *mancher*, some. The sixth subclass consists solely of the indefinite article, *ein*. Subclass seven is made up of the possessives, and subclass eight of the ordinals. These subclasses are relevant to the co-occurrence and ordering restrictions. The determiners will be subdivided differently with regard to subcategorization restrictions.

¹ Adapted from Jack Moeller et al. *Deutsche Heute: Grundstufe*. 7th ed. Boston: Houghton Mifflin, 2000.

4.2 Co-Occurrence Restrictions of German Determiners

Determiners in German obey co-occurrence restrictions. These co-occurrence restrictions are based upon the the seven subclasses.

4.2.1 Definite Articles

The definite article cannot co-occur with the indefinite article, as in

4.1) *der ein Mann /der ein man/ the a man

4.2) *eine die Mutter /eine di muter/ a the mother

It also cannot co-occur with the demonstratives, thus,

4.3) *dieser der Fußball /diser der fusbal/ this the football

4.4) *jene die Bahn /jene di ban/ that the railroad

The definite article cannot co-occur with the interrogative determiner,

4.5) *welches das Radio /velxes das radio/ which radio

It can also co-occur with the quantifier *aller*, thus,

4.6) alle die Schuhe /ale di fu?e/ all the shoes

but not with *mancher*, thus,

4.7) *manche die Markte /man?e di markte/ some of the markets

The definite article cannot co-occur with the possessives, as in,

4.8) *der mein Wald /der mein vald/ the my forest

It can co-occur with the ordinals, thus,

4.9) der erste Fisch /der erst fi?/ the first fish

4.2.2 Demonstratives

The German demonstratives cannot co-occur with either the definite or indefinite articles, thus,

4.10) *dieser der Film /diser der film/ this the film

4.11) *solches ein Obst /solçes ein obst/ such a fruit

They can co-occur with the quantifiers as in,

4.12) alle jene Milch /ale jene milç/ all that milk

4.13) manches dieses Lied /mançes dises lid/ some of this song

The demonstratives cannot co-occur with the possessives, as in,

4.14) *dein dieser Zug /dein diser zug/ your this train

Or with the interrogatives,

4.15) *welcher dieser Baum /velçer diser baum/ which this tree

4.2.3 Interrogatives

The interrogatives cannot co-occur with either the definite or indefinite articles, thus,

4.16) *welcher der Onkel /velçer der onkəl/ which the uncle

4.17) *welches ein Ding /velçes ein diŋ/ which a thing

They also cannot co-occur with the demonstratives,

4.18) *welcher jener Baum /velçer jener baum/ which that tree

4.19) *welche solche Sonne /velçe solçe son/ which such sun

Or with the possessives, as in,

4.20) *welcher sein Tisch /velçer zein tiʃ/ which his table

The interrogatives can co-occur with the ordinals, thus,

4.21) welches erste Buch /velçes erste bux/ which first book

But not with the quantifiers,

4.22) *aller welcher Brief /aler velçer brif/ all which letter

4.23) *mancher welcher Bus /mançer welçer bus/ some of which bus

4.2.4 The Quantifier Aller

This quantifier can co-occur with the definite but not the indefinite articles, thus

4.24) alle die Bleistifte /ale di bleistifte/ all the pencils

4.25) *alle eine Tische /ale eine tife/ all a tables

It can also co-occur with the demonstratives,

4.26) alle diese Bücher /ale dise byxer/ all these books

This quantifier cannot co-occur with the ordinals, thus,

4.27) *alles erst Ding /ales erst diŋ/ all (the) first thing

They can also not co-occur with the interrogative, as in,

4.28) *aller welcher Baum /aler welçer baum/ all which tree

The quantifiers can also co-occur with the possessives, thus,

4.29) alle meine Stühle /ale meine style/ all of my chairs

4.2.5 The Quantifier Mancher

This quantifier cannot co-occur with the definite article or the indefinite article,

4.30) *manche eine Terrasse /mançe eine terase/ some of a patio

4.31) *manches das Geld /mançes das geld/ some of the money

It can also not co-occur with the demonstratives, as in,

4.32) *mancher jener Tag /mançer jener tag/ some of that day

This quantifier cannot co-occur with the ordinals, thus,

4.33) *mancher ein Wald /mançer ein wald/ some of a forest

It cannot co-occur with the interrogative, thus,

4.34) *manches welches Buch /mançes welçes bux/ some of which book

And also with the possessives,

4.35) manches deiner Butter /mançes deiner buter/ some of your butter

4.2.6 Indefinite Article

The indefinite article obeys the same co-occurrence restrictions as the definite article.

It is listed here as a separate class because many German grammarians class it separately.

4.2.7 Possessives

The possessives cannot co-occur with the definite or indefinite articles, as in,

4.36) *sein der Käse /sein der kase/ his the cheese

4.37) *meine eine Brücke /meine eine bryke/ my a bridge

They can also not co-occur with the demonstratives, thus,

4.38) *ihre jene Geschichte /ire jene geſiſte/ her that story

The possessives can co-occur with the quantifiers,

4.39) all dein Krieg /al dein krig/ all your war

They can also co-occur with the ordinals, as in,

4.40) sein erster Baum /sein erster baum/ his first tree

The possessives cannot co-occur with the interrogative,

4.41) *mein welches Kind /mein velçes kind/ my which child

4.2.8 Ordinals

The ordinals can co-occur with all other determiners.

4.3 Ordering Restrictions of German Determiners

German, as other languages, has ordering restrictions that determine the order in which the constituents of a noun phrase occur. In German, these restrictions can be manifested in the following chart,

Quantifier	Demonstrative	Ordinal	Adjective	Noun
	Def/Indef Article			
	Interrogative			
	Possessive			

The second slot is the only one that has multiple possible members. In the other four slots, an occupant must be selected from a particular class to fill the slot.

4.4 Subcategorization Restrictions of German Determiners

In order to better describe the subcategorization restrictions, it may be prudent to review the subcategorization frame proposed by Quirk and Greenbaum. They propose that all nouns will fit into one of the following slots, singular, plural, and mass. They further propose that any given determiner can only modify members of certain of these slots. The slots that a particular determiner can modify determine its classification in regard to subcategorization. German determiners separate into only two classes with regard to subcategorization.

4.4.1 Class One Determiners

The class one determiners include *der, dieser, jener, solcher, welcher, aller, mancher*, and the possessives. These determiners can modify a noun from any of the classes. They can modify a singular noun, thus,

4.42) *der Baum /der baum/ the tree*

and a plural noun, thus,

4.43) *diese Bäume /dise baume/ these trees*

They can also modify a mass noun, thus,

4.44) *alles Wasser /ales vasser/ all water*

The subcategorization frame for class one determiners would be as follows,

X	X
X	

4.4.2 Class Two Determiners

The class two determiners consist only of *ein* and the ordinals. These determiners cannot modify a plural noun, though they can modify a singular or a mass noun. Thus, the following is true.

4.43) *ein Garten /ein garten/ a garden*

4.44) **eine Garten /eine garten/ gardens*

4.45) *eine Milch /eine milch/ a milk*

The subcategorization frame for class two determiners would be as follows,

X	
X	

4.5 Phonology of German Determiners

German determiners are not altered phonologically.

4.6 Morphology of German Determiners

German determiners are morphologically marked for gender, number, and case.

German has three genders, two numbers, and four cases. There is no gender distinction in the plural. A given determiner will, therefore, have eight forms in German. There are two basic sets of morphological markings. The first patterns with the definite article, *der* in all forms. The second patterns with the indefinite article, *ein* in all forms. For this reason it is only necessary to represent the forms of these two determiners in this paper.

The declension of *der* is as follows,

	Masculine	Feminine	Neuter	All Plural
Nominative	der	die	das	die
Accusative	den	die	das	die
Genitive	des	der	des	der
Dative	dem	der	dem	den

The words that pattern with *der* are *dieser*, *jener*, *solcher*, *welcher*, *aller*, *mancher*, and the ordinals. Following is the declension of *dieser*, which sets the pattern for the remainder of these determiners

	Masculine	Feminine	Neuter	All Plural
Nominative	dieser	diese	dieses	diese
Accusative	diesen	diese	dieses	diese
Genitive	dieses	dieser	dieses	dieser
Dative	diesem	dieser	diesem	diesen

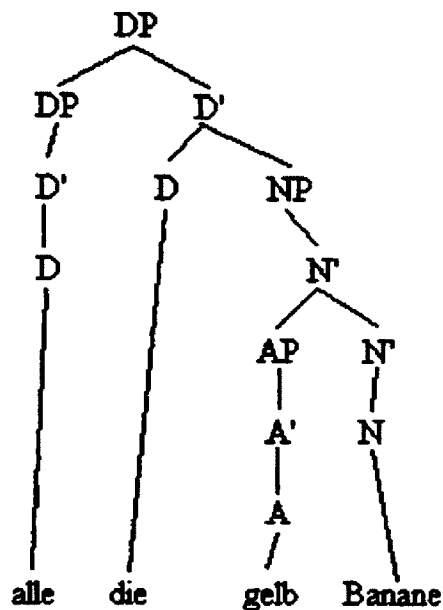
The determiners that pattern with *ein* are the possessives. All of these forms pattern together exactly. The declension of *ein* is as follows,

	Masculine	Feminine	Neuter	All Plural
Nominative	ein	eine	ein	keine ²
Accusative	einen	eine	ein	keine
Genitive	eines	einer	eines	einer
Dative	einem	einer	eines	einen

4.7 Syntax of German Determiners

The history of German syntax study has followed much the same pattern as the previous languages examined. In its earlier stages German syntax represented a noun phrase as a linear string. It then progressed to a Transformational Grammar Tree-structure, then to an X-bar tree structure. The most recent advancement has been to the Determiner Phrase hypothesis. This structure would be represented in German as follows.

²This form is in the negative, it cannot occur in the positive.



German is consistent with the DP analysis proposed by Abney, and supports the hypothesis that there is a Determiner Phrase that dominates the Noun Phrase.

4.8 Summary of German Determiners

German exhibits evidence consistent with an III language. It has qualifiers, definite and indefinite articles. All three of these are inflected for gender, number, and case.

German also presents data consistent with the proposed universals. It possesses qualifiers. All three of the occurring classes bear the same inflectional marking. It possesses both indefinite and definite articles. With regard to the fourth universal, German determiners are constrained by co-occurrence restrictions, ordering restrictions, and subcategorization restrictions. German is consistent with the language types and determiner universals proposed in this paper.

5 Conclusion

5.1 Determiner Typology and Universals

In this paper three languages were examined in terms of their determiner attributes. These three languages belong to three different types, English to UUU, Russian to INN, and German to III. In the introduction two different proposals were made regarding determiner typology, first that there are six occurring determiner language types, and second that there are four language universals with regard to determiner properties.

5.1.1 Determiner Types

The idea that there are different types into which a language may fit with regard to its determiner properties was proposed in the introduction. This is confirmed by the data presented in chapters two through four. Each of the three distantly related languages examined fits neatly into a different determiner type as outlined above. Many other languages pattern with these languages. Nearly all of the Slavic languages fall into the same type as Russian, as does Latin. Most Indo-European languages pattern with German. English is in a more restricted type, with fewer members. Recall that I said that there appear to be six occurring determiner language types. This paper presented evidence for three of these types, whether the number of naturally occurring determiner language types is six, or three, or another number is beyond the scope of this paper.

5.1.2 Determiner Universals

The second issue raised in the introduction was that of determiner universals. It was proposed that there are four such universals. Each of these will now be examined in more detail.

5.1.2.1 Universal One: All Languages Possess Qualifiers

The first universal proposed was that all languages have qualifiers. There are qualifiers in all three of the languages examined. In Russian, these qualifiers are the extent of the determiner set. In English, they are uninflected and in German, the qualifiers are highly inflected, but they occur in all three languages. It may, therefore, be supposed that these will also occur in other languages, though further research is needed to demonstrate this definitively.

5.1.2.2 Universal Two: Indefinite Articles Do Not Occur Without Definite Articles

The second universal proposed is that indefinite articles cannot occur without definite articles. Only one of the languages examined, English, has indefinite articles. English also possesses definite articles. German also has definite articles, as well as indefinite articles. In none of the languages examined do indefinite articles occur without their definite counterparts.

5.1.2.3 Universal Three: All Determiners must Share Inflectional Properties

The third proposed universal was that if one of the three main classes of determiners is inflected, then all other classes that occur in that language must also be inflected. In Russian, only one class occurs, and it is inflected. In German, all three classes, definite articles, indefinite articles, and qualifiers occur, and are inflected. In English, all three classes occur and all three are uninflected. This data supports the existence of this universal, and once again the supposition can be made that this will prove true in other languages.

5.1.2.4 Universal Four: All Languages Possess Three Types of Determiner

Restrictions

The final universal proposed is that all languages restrict determiner occurrence in three ways. First, through co-occurrence restrictions, they restrict which determiners can occur simultaneously within the same Determiner Phrase. These restrictions are vibrant in all three languages examined, though they do not restrict the same forms or words from co-occurring. From this one can surmise that although these restrictions are universal, what they restrict is language specific. The second restriction is the ordering restriction. This determines the order in which co-occurring determiners will occur. This restriction is also active in all three languages, though also restricting and placing different forms in different orders.

The third restriction is the subcategorization restriction. This restriction determines what nouns a particular determiner can modify. This is also a vibrant and active property of all three of the languages examined. The subcategorization restriction is not based upon natural determiner classes, as are the other two restrictions, but is word specific, and forms different classes. They, too vary cross-linguistically, though their presence seems to be universal.

5.2 Final Thoughts

In conclusion, this paper demonstrates the existence of absolute determiner types into which a given language may fit. The evidence does not suggest that a particular language can waffle back and forth between types. This paper also demonstrates that there are at least four different properties of determiners that are universal throughout all human language.

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¹ I have included all the sources that were useful in writing this thesis.

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